

Mineral Industry Surveys

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IRON ORE IN MAY 2006

U.S. mine production of iron ore in May 2006, on a daily average basis, was 9% greater than that of the prior month, according to the U.S. Geological Survey. Average daily production, at 153,000 metric tons per day (t/d), was 12,800 t/d greater than that of April 2006.

Average daily shipments in May 2006, at 162,000 t/d, were 3% less than those of April. Mine stocks at the end of May were 265,000 metric tons (t) less than those on April 30, a 2% decrease.

U.S. imports of iron ore in April 2006 were 84% greater than exports, with imports exceeding exports by 528,000 t.

Price Update.—By the end of June, the three major exporters of iron ore had announced settling their 2006-07 contract prices with the Chinese steel producers—a price increase of 19% for lump and fine ore and a decrease of 3% for Brazilian blast furnace pellets (BHP Billiton Limited, 2006§¹; Companhia Vale do Rio Doce, 2006§; Rio Tinto plc, 2006§).

North American Pricing.—Cleveland-Cliffs Inc announced that its 2006 iron ore prices would be increased. Average 2006 sales revenues for pellets were expected to rise 7.5% over the 2005 average, with international pricing, producer price indices, price of hot rolled steel, and transportation costs all affecting the final price (Cleveland-Cliffs Inc, 2006§).

Exploration and Development Update.—Government officials of Gabon granted a group headed by China National Machinery and Equipment Import and Export Corporation rights to large untapped iron ore reserves (about 1 billion t at 60% iron content) at Belinga. According to Government officials, the Chinese offer of financial guarantees and agreement to purchase all ore produced was better than the offer made by a consortium led by Companhia Vale do Rio Doce. The project would include construction of a mine, major rail links, a deepwater port, and a new hydroelectric dam. The total cost was estimated at approximately \$590 million (Agence France-Presse, 2006a§, b8)

Domestic Update.—Minnesota Steel Industries, LLC continues to make progress on the \$1.6 billion combined iron

ore mine, pelletizing plant, direct-reduced iron plant, and steelmaking facilities near Nashwauk, MN (See Iron Ore in November 2004.). Project economics have recently benefited from additional leases on ore reserves, a less expensive source of natural gas, and a change to slab rather than hot-rolled coil, as the final product. Further advantages of the project include transportation cost advantages to finishing plants in the Great Lakes region, the control of iron ore reserves for steelmaking, and the reduced silica content of the ore. Draft scoping studies have been completed, and a draft environmental impact assessment should be available in the third quarter of 2006, with construction possibly beginning in the first quarter of 2007 (Pinkham, 2006).

Transportation.—A capesize bulk vessel carrying 155,000 t of iron ore sank on May 3 off the east coast of South Africa. The "*Alexandros T*" was en route from Brazil to China (Mining Engineering, 2006).

References Cited

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¹References that include a section mark (§) are found in the Internet References Cited section.

TABLE 1
U.S. PRODUCTION AND SHIPMENTS OF IRON ORE^{1, 2}
(Exclusive of ore containing 5% or more of manganese)

(Thousand metric tons)

	Pro	Production		pments
Period	Monthly	Year to date	Monthly	Year to date
2005:				
May	5,250	22,000	5,210	17,300
June	4,480	26,500	4,840	22,100
July	5,160	31,600	5,110	27,200
August	4,840	36,500	5,020	32,200
September	4,460	40,900	5,150	37,400
October	4,480	45,400	5,190	42,600
November	4,740	50,200	4,330	46,900
December	4,380	54,500	4,880	51,800
2006:				
January	4,600	4,600	3,600	3,600
February	3,820	8,420	953	4,550
March	4,600	13,000	2,330	6,880
April	4,220	17,200	5,020	11,900
May	4,750	22,000	5,020	16,900

¹Data are rounded to no more than three significant digits.

 $\label{eq:table 2} \text{U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE IN MAY}^{1,\,2}$

(Thousand metric tons)

	Produ	Production		Shipments ³		ks ⁴
State	2006	2005	2006	2005	2006	2005
Michigan	1,060	1,370	1,070	1,190	2,720	2,150
Minnesota	3,690	3,880	3,950	4,020	8,090	5,580
Total	4,750	5,250	5,020	5,210	10,800	7,730

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Excludes byproduct ores.

²Excludes byproduct ore.

³Includes rail and vessel.

⁴Includes mines, concentrators, pelletizing plants, and loading docks.

 $\label{eq:table 3} {\sf CANADA: \ SHIPMENTS \ OF \ IRON \ ORE}^{1,\,2}$

(Thousand dry metric tons)

	Newfoundland		British		
Period	and Labrador	Quebec	Columbia	Total	
2005:					
April	1,690	967	7	2,660	
May	1,940	588	10	2,540	
June	1,620	399	8	2,030	
July	1,500	1,050	7	2,550	
August	1,430	708	10	2,150	
September	1,800	1,160	9	2,960	
October	2,000	927	10	2,930	
November	1,920	1,320	10	3,250	
December	1,900	1,130	9	3,040	
Year total	19,100	10,900	106	30,100	
2006:					
January	1,010 ^r	705	10	1,720 °	
February	951 ^r	730	10	1,690 ^r	
March	1,210 ^r	730	7	1,950 ^r	
April	1,850	1,180	8	3,030	
1					

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: Natural Resources Canada.

TABLE 4 PRODUCTION OF PIG IRON AND RAW STEEL IN THE UNITED STATES, BY TYPE OF FURNACE $^{\rm I}$

(Thousand metric tons)

	Pig iron	production,	Raw steel production					
	blast	furnace	Basic oxy	Basic oxygen furnace ²		c furnace		
Period	Monthly	Year to date	Monthly	Year to date	Monthly	Year to date		
2005:								
April	3,080	13,400	3,500	15,100	4,440	16,900		
May	3,080	16,500	3,430	18,600	4,320	21,200		
June	2,690	19,200	3,000	21,600	4,110	25,300		
July	2,630	21,800	2,920	24,500	4,210	29,500		
August	2,890	24,700	3,180	27,700	4,370	33,900		
September	2,840	27,500	3,330	31,000	4,440	38,400		
October	2,940	30,500	3,470	34,500	4,810	43,200		
November	3,000	33,500	3,170	37,700	4,660	47,800		
December	2,840	36,300	3,380	41,000	4,420	52,300		
2006:								
January	3,190	3,190	3,560	3,560	4,530	4,530		
February	3,100	6,300	3,470	7,030	4,250	8,780		
March	3,420	9,710	3,800	10,800	5,070	13,900		
April	3,280	13,000	3,640	14,500	4,870	18,700		

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: American Iron and Steel Institute.

²Includes production from steel plant waste oxides.

²Raw steel production figures for the basic oxygen process are usually greater than the corresponding pig iron production figures because scrap is routinely melted in the basic oxygen furnace together with the molten pig iron.

 ${\rm TABLE}~5$ U.S. EXPORTS OF IRON ORE, BY COUNTRY OF DESTINATION AND TYPE $^{1,\,2}$

(Thousand metric tons)

Country of destination	200:	5			2006	
and type of product	4th quarter	Total	February	March	1st quarter	April
Canada	2,560	11,200	126	224	998	579
China	86	282				52
Mexico		30	(3)	12	13	(3)
Slovakia		237				
Trinidad and Tobago		(3)				
United Kingdom		78				
Other	3	8	(3)	(3)	2	(3)
Total	2,760	11,800	126	236	1,010	631
Pellets	2,670	11,600	124	155	925	628
Concentrates	80	89	(3)	1	2	(3)
Direct shipping ores	5	60		1	2	1
Other	6	11	2	79	83	2
Total	2,760	11,800	126	236	1,010	631

⁻⁻ Zero.

Source: U.S. Census Bureau.

TABLE 6 U.S. IMPORTS FOR CONSUMPTION OF IRON ORE, BY COUNTRY AND TYPE 1,2 (Exclusive of ore containing 20% or more manganese)

			2006			2005
	Aŗ	oril		Year to date		January-April
	Thousand	Value ³	Thousand	Value ³	Value ³	Thousand
Country of origin	metric	(thousand	metric	(thousand	(dollars	metric
and type of product	tons	dollars)	tons	dollars)	per ton)	tons
Australia			8	135	18.00	
Brazil	333	17,300	1,410	71,100	50.52	1,480
Canada	821	44,100	1,480	88,700	60.01	1,360
Chile			96	4,270	44.30	172
China						(4)
Finland	3	106	3	106	35.24	3
Greece			15	386	25.00	13
Mexico	2	42	6	141	25.00	4
Paraguay						4
Peru			38	1,200	31.44	(4)
Russia						99
Spain						1
Trinidad and Tobago			284	5,900	20.80	375
Venezuela						14
Total	1,160	61,600	3,340	172,000	51.55	3,530
Concentrates	217	5,260	668	23,800	35.61	231
Coarse ores						21
Fine ores	321	16,900	1,170	48,400	41.38	1,250
Pellets	616	39,300	1,490	99,500	66.82	1,970
Other agglomerates	2	42	6	141	25.00	60
Roasted pyrites	3	106	3	106	35.24	
Total	1,160	61,600	3,340	172,000	51.55	3,530

⁻⁻ Zero.

Source: U.S. Census Bureau.

 $^{^{1}\}mbox{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²Includes agglomerates.

³Less than ½ unit.

¹Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits; may not add to totals shown.

²Includes agglomerates.

³Customs value. Excludes international freight and insurance charges.

⁴Less than ½ unit.

TABLE 7 U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN APRIL $2006^{1,2}$ (Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

		Type of product						
			Briquettes					
		Coarse	Fine		and other	Roasted		
Country of origin	Concentrates	ores	ores	Pellets	agglomerates	pyrites	Total	
Brazil			185	149			333	
Canada	217		136	467			821	
Finland						3	3	
Mexico					2		2	
Total	217		321	616	2	3	1,160	

⁻⁻ Zero.

Source: U.S. Census Bureau.

 $\label{eq:table 8} \text{U.s. IMPORTS FOR CONSUMPTION OF PELLETS}, \ \ \text{BY COUNTRY}^1$

			2005			
	Ar	oril		Year to date		January-April
	Thousand	Value ²	Thousand	Value ²	Value ²	Thousand
Country	metric	(thousand	metric	(thousand	(dollars	metric
of origin	tons	dollars)	tons	dollars)	per ton)	tons
Brazil	149	10,100	640	41,100	64.18	947
Canada	467	29,200	849	58,400	68.81	923
Russia						99
Total	616	39,300	1,490	99,500	66.82	1,970

⁻⁻ Zero.

Source: U.S. Census Bureau.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes agglomerates.

¹Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits; may not add to totals shown.

²Customs value. Excludes international freight and insurance charges.

 ${\it TABLE~9} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~IRON~ORE,} \\ {\it BY~CUSTOMS~DISTRICT}^{1,~2} \\$

(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

	April	January	-April
Customs district (code no.)	2006	2006	2005
Baltimore, MD (13)	353	1,350	1,220
Buffalo, NY (09)			5
Chicago, IL (39)	189	189	105
Cleveland, OH (41)	300	300	316
Detroit, MI (38)	26	51	27
Houston-Galveston, TX (53)		15	36
Los Angeles, CA (27)			(3)
Mobile, AL (19)		5	61
New Orleans, LA (20)	285	1,410	1,740
Nogales, AZ (26)	2	13	4
Ogdensburg, NY (07)	(3)	(3)	
Philadelphia, PA (11)	3	3	
San Francisco, CA (28)			4
San Juan, PR (49)			6
St. Louis, MO (45)		(3)	
Total	1,160	3,340	3,530

⁻⁻ Zero.

Source: U.S. Census Bureau.

TABLE 10 $\mbox{U.s. IMPORTS FOR CONSUMPTION OF PELLETS,} \\ \mbox{BY CUSTOMS DISTRICT}^{1}$

(Thousand metric tons)

	April	January	-April
Customs district (code no.)	2006	2006	2005
Baltimore, MD (13)	141	568	655
Chicago, IL (39)			26
Cleveland, OH (41)	300	300	314
Detroit, MI (38)	26	51	27
Houston-Galveston, TX (53)			36
Mobile, AL (19)			61
New Orleans, LA (20)	149	569	851
Total	616	1,490	1,970
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¹Data are rounded to no more than three significant digits; may

Source: U.S. Census Bureau.

not add to totals shown.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes agglomerates.

³Less than ½ unit.